

Commonwealth of Massachusetts
Department of Telecommunications and Energy
Fitchburg Gas and Electric Light Company
Docket Nos. D.T.E. 02-24 and D.T.E. 02-25
Responses to the Department's Second Set of Information Requests

Request No. DTE 2-23:

Refer to Exhibit FGE-MHC-1 (Electric) at 19. Please provide a full explanation of the Company's transfer of a transformer on Princeton Road to the West Townsend substation. The Company's response should include the capacity of the West Townsend substation transformer, which failed, the date of failure, the capacity of the replacement transformer, and a timetable of the events associated with the failure and replacement.

Response:

Before providing an explanation of the transfer of the transformer from Princeton Road, it is important to first describe the capacity situation that led to the decision. FG&E has distribution substations in both Townsend and West Townsend. These substations have circuit ties in common and together feed more than 16 MVA of load in the Townsend and West Townsend area. Prior to the failure, West Townsend's transformer capacity was rated 3.75/5.25 MVA for a load approaching 4 MVA. Townsend's transformer capacity was rated 7.5/10.5 MVA for a load approaching 12 MVA.

Engineering had identified a need to address capacity at Townsend by the summer of 2001 or 2002. During the summer of 2000, a study was completed to review various options involving transformer deliveries for Sawyer Passway Substation. This study included a review of substation capacity issues at substations around the FG&E system, including Townsend and West Townsend. One recommendation of this study was to transfer a 7.5/10.5 MVA transformer from Princeton Road to West Townsend as part of a plan to address capacity constraints at Townsend. Please refer to DTE 2-25 for further details, and for a copy of the study issued 8/11/00.

Shortly after completing and issuing these recommendations, the West Townsend transformer failed during a storm. This failure occurred on September 20, 2000 during a period of severe thunderstorms when multiple faults were experienced on the 13.8 kV distribution emanating from the substation. All customers impacted by the failure at West Townsend were restored via circuit ties to Townsend substation. The mobile substation was then installed to carry the West Townsend load until a more permanent solution could be implemented.

Following the failure at West Townsend, a decision was made to proceed immediately with the planned transfer of the Princeton Road 7.5/10.5 MVA transformer to West Townsend. Reference "Plan of Action" memo dated 9/22/00 included as Attachment DTE 2-23, Electric Division. The Princeton Road 7.5/10.5 MVA transformer was moved to West Townsend substation on October 12, 2000. West Townsend substation was back to normal configuration on October 23, 2000.

Person Responsible: Mark H. Collin